

## **LISTING OF CLAIMS:**

This Listing of Claims supercedes all previous claims listings.

**1. (Withdrawn)** A capsular medical system comprising:

a radio receiving device in an extracorporeal device, to which a plurality of antennas are connected;

a radio transmitting device in a capsular in-body unit, which transmits medical data;

a switching device which switches antennas provided for the extracorporeal device;

a monitor device which monitors a receiving state of the selected antenna; and

a storing device which stores the receiving state every antenna,

wherein the monitor device comprises:

a data amount measuring device which measures the data amount of medical data transmitted from the in-body unit;

a timer device which counts the time required for transferring the medical data in units from the in-body unit; and

a calculating device which calculates a data transfer speed based on the data amount and the time required for transferring the data.

**2. (Withdrawn)** The capsular medical system according to Claim 1, wherein the data amount measuring device measures the data amount between two symbols which are added to the head and the end of the medical data.

**3. (Withdrawn)** The capsular medical system, wherein the timer device counts an interval from the time for detecting the symbol added to the head of the medical data to the time for detecting the symbol added to the end of the medical data.

**4. (Withdrawn)** A capsular medical system comprising:

a radio receiving device in an extracorporeal device, to which a plurality of antennas are connected;

a radio transmitting device in a capsular in-body unit, which transmits medical data;

a switching device which switches the antennas provided in the extracorporeal device;  
a monitor device which monitors a receiving state of the selected antenna; and  
a storing device which stores the receiving state every antenna,  
wherein the monitor device which monitors the receiving state comprises:  
a device which previously stores the data amount of medical data in units from the in-body unit;  
a timer device which counts a transfer requiring time of the medical data in units from the in-body unit; and  
a calculating device which calculates a data transfer speed based on the time required for transferring the data amount.

**5. (Withdrawn)** A capsular medical system comprising:

a radio receiving device in an extracorporeal device, to which a plurality of antennas are connected;  
a radio transmitting device in a capsular in-body unit, which transmits medical data;  
a switching device which switches the antennas provided in the extracorporeal device;  
a monitor device which monitors a receiving state of the selected antenna; and  
a storing device which stores the receiving state every antenna,  
wherein the monitor device comprises:  
a storing device which stores the lowest allowable value in the receiving state;  
a comparing device which compares the receiving state with the lowest allowable value;  
and  
a switching instructing device which issues an instruction for switching the antenna.

**6. (Withdrawn)** A capsular medical system comprising:

a radio receiving device in an extracorporeal device, to which a plurality of antennas are connected;  
a radio transmitting device in a capsular in-body unit, which transmits medical data;  
a switching device which switches the antennas provided in the extracorporeal device;  
a monitor device which monitors a receiving state of the selected antenna; and  
a storing device which stores the receiving state every antenna,

wherein the monitor device comprises:

a first timer device which counts a time required for transferring the medical data in units, which is transmitted from the in-body unit;

a second timer device which counts a time required for transferring the medical data in units, from the in-body unit;

a calculating device which calculates a data transfer speed based on stored data amount and the time required for transferring the data; and

a position calculating device which calculates the position of the in-body unit based on the data transfer speed of each of the plurality of antennas.

**7. (Currently Amended)** A capsular medical system comprising:

a capsular in-body unit having a radio communication device which is inserted or swallowed to be introduced to the body cavity;

an extracorporeal device having a communication device for communication with the in-body unit, which is arranged outside the human body; and

at least two antennas which are arranged near the body surface to communicate data to the in-body unit connected to the extracorporeal device,

the capsular medical system further comprising:

a switching device which switches the antennas; and

a detecting device which detects a communication state including a transmitting state for transmitting to, and a receiving from, the extracorporeal device,

wherein the extracorporeal device synchronizes timing for switching the antenna with timing for switching communication direction of the receiving and transmitting in accordance with a detected communication state of one of receiving and transmitting.

**8. (Currently Amended)** A capsular medical system comprising:

a capsular in-body unit having a radio communication device which is inserted or swallowed to be introduced to the body cavity;

an extracorporeal device having a communication device for communication with the in-body unit, which is arranged outside the human body;

a plurality of antennas which are arranged near the body surface to communicate data to

the in-body unit connected to the extracorporeal device;

a switching device which switches the antennas;

a detecting device which detects a communication state including a transmitting state for transmitting to, and a receiving state for receiving from, the extracorporeal device; and

an antenna selecting device which detects a receiving strength, in the in-body unit, of signals transmitted from at least two antennas and selects the antenna in a preferable receiving and transmitting state,

wherein the extracorporeal device operates the switching device at a switching timing synchronized with switching of communication direction of the receiving and transmitting, and the antenna selecting device performs the operation within a time interval set by a timer.

**9. (Currently Amended)** A capsular medical system comprising:

a capsular in-body unit having a radio communication device which is inserted or swallowed to be introduced to the body cavity;

an extracorporeal device having a communication device for communication with the in-body unit, which is arranged outside the human body;

a plurality of antennas which are arranged near the body surface to communicate data to the in-body unit connected to the extracorporeal device;

a switching device which switches the antennas;

a detecting device which detects a communication state including transmitting to and receiving from the extracorporeal device; and

an antenna selecting device which detects a receiving strength, in the in-body unit, of signals transmitted from at least two antennas and selects the antenna in a preferable receiving and transmitting state,

wherein the extracorporeal device operates the switching device at a switching timing synchronized with switching of communication direction of the receiving and transmitting, and the detecting device performs the operation within a time interval set by a timer and, when a communication state is deteriorated, the antenna is switched.

**10. (Currently Amended)** A capsular medical system comprising:

a capsular in-body unit having a radio communication device which is inserted or

swallowed to be introduced to the body cavity;

an extracorporeal device having a communication device for communication with the in-body unit, which is arranged outside the human body;

a plurality of antennas which are arranged near the body surface to communicate data to the in-body unit connected to the extracorporeal device;

a switching device which switches the antennas;

a detecting device which detects a communication state including transmitting to and receiving from the extracorporeal device; and

an antenna selecting device which detects a receiving strength, in the in-body unit, of signals transmitted from at least two antennas and selects the antenna in a preferable receiving and transmitting state,

wherein extracorporeal device operates the switching device at a switching timing synchronized with switching of communication direction of the receiving and transmitting, and a number n of antennas whose receiving and transmitting states are detected is less than a number N of all of the attached antennas at a time of antenna switching.

11. **(Original)** The capsular medical system according to Claim 10, wherein the antenna whose receiving and transmitting state is checked is determined based on the antenna which currently receives data.

12. **(Currently Amended)** A capsular medical system comprising:

a capsular in-body unit having a radio communication device which is inserted or swallowed to be introduced to the body cavity;

an extracorporeal device having a communication device for communication with the in-body unit, which is arranged outside the human body;

a plurality of antennas which are arranged near the body surface to communicate data to the in-body unit connected to the extracorporeal device;

a switching device which switches the antennas;

a detecting device which detects a communication state including a transmitting state for transmitting to, and a receiving state for receiving from, the extracorporeal device; and

an antenna selecting device which detects a receiving strength, in the in-body unit, of

signals transmitted from at least two antennas and selects the antenna in a preferable receiving and transmitting state,

a storing device for storing the receiving and transmitting state,

wherein, when the receiving strength data is not obtained upon operating the antenna selecting device, the antenna able to communicate data is detected and selected to carry out the communication, and wherein the extracorporeal device operates the switching device at a switching timing synchronized with the receiving and transmitting.

**13. (Currently Amended)** A capsular medical system comprising:

a capsular in-body unit having a radio communication device which is inserted or swallowed to be introduced to the body cavity;

an extracorporeal device having a communication device for communication with the in-body unit, which is arranged outside the human body;

a plurality of antennas which are arranged near the body surface to communicate data to the in-body unit connected to the extracorporeal device;

a switching device which switches the antennas;

a detecting device which detects a communication state including a transmitting state for transmitting to, and a receiving state for receiving from, the extracorporeal device; and

an antenna selecting device which detects a receiving strength of a signal transmitted from the in-body unit by at least two antennas and selects the antenna in a preferable receiving and transmitting state,

wherein the extracorporeal device operates the switching device at a switching timing synchronized with switching of communication direction of the receiving and transmitting the antenna selecting device operates within a time interval set by a timer.

**14. (Currently Amended)** A capsular medical system comprising:

a capsular in-body unit having a radio communication device which is inserted or swallowed to be introduced to the body cavity;

an extracorporeal device having a communication device for communication with the in-body unit, which is arranged outside the human body;

a plurality of antennas which are arranged near the body surface to communicate data to

the in-body unit connected to the extracorporeal device;

a switching device which switches the antennas;

a detecting device which detects a communication state including a transmitting state for transmitting to, and a receiving state for receiving from, the extracorporeal device; and

an antenna selecting device which detects a receiving strength of a signal transmitted from the in-body unit by at least two antennas and selects the antenna in a preferable receiving and transmitting state,

wherein the extracorporeal device operates the switching device at a switching timing synchronized with switching of communication direction of the receiving and transmitting,  
wherein the detecting device performs the operation within a time interval set by a timer and  
wherein when a communication state is deteriorated, the antenna is switched.

**15. (Currently Amended)** A capsular medical system comprising:

a capsular in-body unit having a radio communication device which is inserted or swallowed to be introduced to the body cavity;

an extracorporeal device having a communication device for communication with the in-body unit, which is arranged outside the human body;

a plurality of antennas which are arranged near the body surface to communicate data to the in-body unit connected to the extracorporeal device;

a switching device which switches the antennas;

a detecting device which detects a communication state including a transmitting state for transmitting to, and a receiving state for receiving from, the extracorporeal device; and

an antenna selecting device which detects a receiving strength of a signal transmitted from the in-body unit by at least two antennas and selects the antenna in a preferable receiving and transmitting state,

wherein the extracorporeal device operates the switching device at a switching timing synchronized with switching of communication direction of the receiving and transmitting, and  
wherein a number n of antennas whose receiving and transmitting states are detected is less than  
a number N of all attached antennas at the time of antenna switching.

**16. (Original)** A capsular medical system according to Claim 15, wherein the antenna who's

receiving and transmitting state is checked is determined based on the antenna which currently receives data.

**17. (Currently Amended)** A capsular medical system comprising:

- a capsular in-body unit having a radio communication device which is inserted or swallowed to be introduced to the body cavity;

- an extracorporeal device having a communication device for communication with the in-body unit, which is arranged outside the human body;

- a plurality of antennas which are arranged near the body surface to communicate data to the in-body unit connected to the extracorporeal device;

- a switching device which switches the antennas;

- a detecting device which detects a communication state including a transmitting state for transmitting to, and a receiving state for receiving from, the extracorporeal device; and

- an antenna selecting device which detects a receiving strength of a signal transmitted from the in-body unit by at least two antennas and selects the antenna in a preferable receiving and transmitting state,

- a storing device for storing the receiving and transmitting state,

- wherein, when data on the receiving strength is not obtained upon operating the antenna selecting device, the antenna able to communicate data is detected and selected to carry out the communication, and wherein the extracorporeal device operates the switching device at a switching timing synchronized with switching of communication direction of the receiving and transmitting.

**18. (Previously Presented)** The capsular medical system as set forth in claim 7, wherein the detecting device selects one of the at least two antennas arranged to communicate data to the in-body unit connected to the extracorporeal device, via the switching device, in response to a detected communication state corresponding to movement of the capsular in-body unit in the body cavity.